TRENDS

A Bus for Rapid Transit

Today, your 2GHz processor—the PC's brain, in essence—makes you a speed demon. Future performance gains, however, may rely on the PC's central nervous system, the PCI bus. This data path connects the processor to various parts of the PC, such as hard drives and network-interface cards. The PCI bus debuted in 1993, and it's due for an overhaul.

Although the PCI and the later-generation PCI-X found in computers today are adequate for most uses, analysts expect that as demand for real-time audio, video, and other high-bandwidth applications increases, faster data-transfer speeds will be necessary. In early August the **PCI Special Interest Group** ***(www.pcisig.com)***, which helps develop and manage PCI configurations, began working with the **Arapahoe Work Group,** primarily backed by **Intel,** to hammer out the new PCI standard, named 3GIO. Intel's rival, **AMD**, has its own PCI technology named HyperTransport, but according to Roger Tipley, president of the PCI-SIG, AMD did not submit a proposal to the group for HyperTransport's consideration.

By increasing the frequency of the data moving through each connecting pin, 3GIO can increase data-transfer speeds while decreasing the number of pins, which will cut costs. According to Tipley, a 32-bit PCI bus found in today's computers needs approximately 50 I/O pins to deliver data at 133MB per second. Although exact transfer speeds are still uncertain, Tipley says that a 1-bit-wide 3GIO bus could transfer data at 250MB per second with only four I/O pins, while a 16-bit-wide bus could transfer data at 4GB per second with 64 I/O pins. He adds that this scalability is one reason that the PCI-SIG chose to back 3GIO.

What does this mean for consumers? Not a lot, for now. Cary Snyder, a senior analyst at In-Stat/MDR, predicts we won't see 3GIO in desktops until 2004 or 2005, when consumer applications that need the faster transfer speeds begin to appear. Tipley concurs, adding that, because current PCI devices are low-cost and readily available, they won't disappear from desktop and notebook computers anytime soon.

—Adam Fisher

Because One-Finger Typing Is So Slow

What good is an Internet-enabled cell phone if it takes 10 minutes to type a short e-mail message?

Rest your fingers: Manufacturers are coming to the rescue with speedier input devices. **Motorola's** iBoard ($99.99, ***www.motorola.com/lmps/iden***) is a full-size portable keyboard that allows you to type on your cell phone as you would a laptop, quickly composing e-mail and SMS messages, and phone-book and date-book entries. Similarly, **Sony Ericsson's** Chatboard ***(www.sonyericssonmobile.com)*** is designed with e-mail and SMS messaging in mind.

Motorola iBoard

But mobile-phone keyboards will find limited acceptance in the United States, predicts Allen Nogee, senior analyst for wireless component technology at Cahners In-Stat Group. "Even if you have a better keyboard input, the displays are still small; you really only solve one part of the equation," he says. "People don't want the aggravation of the larger size that these larger keyboards offer."

If a keyboard isn't your style, you may be in luck. More and more phones now include predictive text input, a software feature that can make typing on that tiny keypad a little less tedious. The phone guesses the word you are attempting to type, which can save keystrokes.

—Kevin Savetz

Christmas Trees the New-Fashioned Way

Ready to hike into the woods and chop down a spruce? We didn't think so. These five e-tailers offer a wide range of Christmas trees at reasonable prices, fresh-cut and delivered straight to your door.

	Tree Type/ Size (Feet)	Secure Shopping	Price	Shipping	Total Cost
Blue Mountain Tree Farm ***www.bluemountaintrees.com***	Douglas, Fraser, and concolor firs/ 5 to 7	Yes	$89 to $114	Free	$89 to $114
4Giftgiving.com ***www.4giftgiving.com***	Balsam and Fraser firs/ 6 to 7	Yes	$46.80 to $54.80	$12, plus additional charge that varies by location	$58.80 to $66.80 (plus shipping)
L.L.Bean ***www.llbean.com***	Maine balsam/ 5.3 to 7	Yes	$65 to $75	$5.95	$70.95 to $80.95
Meadowbrook Hill Farm ***www.realholidaytrees.com***	Douglas fir/ 5 to 6	Yes	$64	Free	$64
Shady Rest Tree Farm ***www.shadyresttreefarm.com***	White pine and Fraser fir/ 4.5 to 7	Yes	$46 to $76	Free east of Mississippi; $10 west of Mississippi	$46 to $76 ($56 to $86 west of Mississippi)